# **ASSEMBLY INSTRUCTIONS**

# 4 & 7 WAYS (STAMPED, FORMED/PRESSED AND ROLLED CONTACT)



**Note**: The tools listed are for the seal captivation crimp tool, please contact us for more information on the non-captivating style crimp tool.





STEP 1: Slide individual wire seal up the wire. Isopropyl alcohol will help. Seal may be used either way, depending on contacts and tools used. It can be crimped into place with the contact or slid down to rear of the contact. Cutting the wire on a diagonal may also assist in sliding the seal on the wire.

STEP 2: Strip wire to proper length. ⇒ See page 48-49.

Note: Depending on the orientation of the wire seal, it may be easier to strip the wire before applying the seal.

**STEP 3:** Load contact into proper hole on the locator.

**STEP 4:** Close the tool just enough to grip the contact.

**STEP 5:** Insert the stripped wire into the contact from the wire side. The wire seal should be located flush with the tip of the wire insulation.

**STEP 6:** Cycle the tool. The tool will not open until the contact has been completely crimped.

STEP 7: Remove the crimped contact from the tool and inspect the crimp. See Stamped Contacts in the Crimp inspection sections on ⇒ page 37. Note: Mini-Applicators for industry standard crimp presses are available to order. Please contact us with contact and wire information.

### 1, 2 & 6-WAY (MACHINED CONTACTS)



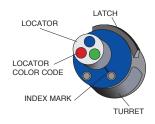
**STEP 1:** Slide rear accessories up the cable/wire in the proper order: securing nut, then wire seal.

STEP 2: Strip the wires to length.

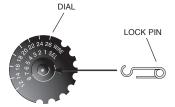
# 6-WAY (CRIMPED WITH THE STANDARD AF8 HAND TOOL AND PROPER LOCATOR)



**STEP 1:** Open the crimp tool by squeezing the handles. Push the latch on turret to pop the locator. Attach the turret to the crimp tool using the two captive hex bolts in the turret.



**STEP 2:** Select the proper locator position for your contact by rotating the locator until the proper color is aligned with the index mark. Push locator back down until it snaps into position. Adjust dial for proper wire gauge.



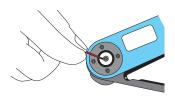
**STEP 3:** To change the dial setting, remove the lock pin and lift center of dial. Turn to the desired wire gauge. Replace lock pin on dial.



**STEP 4:** Cycle the tool before inserting the contact to be sure the tool is in the open position. Drop the contact, mating end first, into the crimp cavity of the tool. Squeeze the tool handle just enough to grip the contact without actually crimping it.

# **ASSEMBLY INSTRUCTIONS**

# 6-WAY (CRIMPED WITH THE STANDARD AF8 HAND TOOL AND PROPER LOCATOR)



STEP 5: Insert the stripped wire into the contact with a slight twisting motion. Be sure all wire strands are inside the contact. Squeeze the handle to cycle the tool. The handle will not release until the contact is completely crimped.

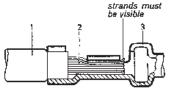
STEP 6: Remove the crimped contact. Pull on the wire slightly to be sure it is properly crimped. Be sure the contact is not bent or damaged in any way.

STEP 7: Visually inspect the crimp. See machined contacts drawing below.

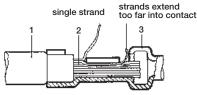
## **CRIMP INSPECTION (MICRO SECTIONS)**

Enlargement of micro section allows for final judgment of crimp quality. This test is recommended whenever new tools or new types of wire are used.

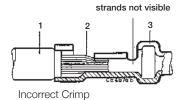
#### FOR STAMPED CONTACTS



Correct Crimp

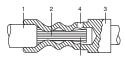


Incorrect Crimp

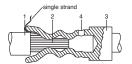


- 1 Insulation
- 2 Strands
- 3 Contact

### FOR MACHINED CONTACTS



Correct Crimp



Incorrect Crimp

- 1 Insulation
- 2 Strands
- 3 Contact
- 4 Wire inspection hole

#### 2 & 1-WAY

Due to the wide variety of wire types and styles, it is highly recommended that a 3 to 4 foot (1m) sample of wire and contacts be submitted to PEI-Genesis when ordering. These samples will be sent to the factory for crimp depth determination and go/no-go gauge creation. Warning: Crimps that have not been verified may cause high resistance, hot spots, and localized heating that can damage the insulating components. ⇒ See page 3 for product safety information.



STEP 1: Use filtered, clean, dry (do not use air oiler) air supply at 70 to 125 PSI (80PSI nominal) at 1 to 2 CFM.

**STEP 2:** Insert the proper locator into the hole in the front face of the 400BHD pneumatic crimp tool and align the notch until the locator is fully inserted.

Note: Failure to use a locator may cause the contact to slide off the wire into the tool, and if cycled, may cause damage to the crimp tool.

**STEP 3:** Put the crimp dies onto the face of the crimp tool, making sure to align the hole on the rear with the die locating pin on the front of the tool. If done correctly, the die assembly will sit flush to the front face of the crimp tool.

STEP 4: Install the cover nut O ring on the front face of the crimp die.

# **ASSEMBLY INSTRUCTIONS**

#### 2 & 1-WAY



STEP 5: Screw on the cover nut to secure the dies to the tool. Do not over tighten. This will compress the cover nut O ring, restricting the crimp dies. This is needed because the contact will lengthen slightly during crimping as the metal of the contact is displaced by the indenters.

**STEP 6:** The crimp kits typically come with go/no-go gauges and it is recommend that the dies be check when locator/dies are changed and at a suitable interval to ensure proper crimp quality.

**STEP 7:** Cycle the tool once before crimping to verify that the tool and dies are in proper working order by depressing the actuator button or optional foot pedal actuator.

**STEP 8:** Insert the mating face of the contact into the locator.



**STEP 9:** Carefully insert the stripped wire into the crimp pot with a slight twisting motion. All strands of the wire must go into the crimp pot of the contact.

**STEP 10:** Fully cycle the tool by depressing the crimp actuator button / pedal.



**STEP 11:** Release the actuator and remove the crimped contact.

STEP 12: Visually inspect the crimp. ⇒ See page 37 for machined contacts drawing.

### **CRIMP INSPECTION**

Enlargement of micro section allows for final judgment of crimp quality. This test is recommended whenever new tools or new types of wire are used.

## **CONTACT INSERTION**



**STEP 1:** No tools are required to insert the standard contacts (all but the 6-way press-in contacts). Simply insert the contact into the proper contact cavity until the contact snap into place. Pull lightly on the wire or threaded contact to verify proper seating.

### FINAL ASSEMBLY



**STEP 1:** Slide any non-captivated wires seals into the rear wire seal cavities. For 4, 6 & 7-way connectors, a snap over endbell can be used.

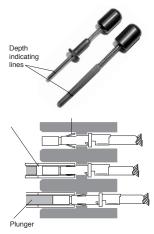


**STEP 2:** For 2-way and 1-way connectors, slide the seal, seal nut or conduit terminator up to the rear of the connectors and tighten.

# CONTACT EXTRACTION

All contacts are removable, but 1-way connector housings cannot be re-used and must be replaced with new housings. Contacts can be removed from the housings using the appropriate extraction tool. The tool is placed over the mating end of the contact and the sleeve is rotated slightly as it is pushed into the connector.

**IMPORTANT:** Make sure the depth indicating line on the tool is even with the mating face of the connector before depressing the plunger to avoid damage to connector and contact. Light pressure on the plunger then ejects the contact from the rear of the connector.



- 1. Contact in connector.
- 2. Extraction tool compresses tines.
- 3. Plunger pushes contact out rear of connector.